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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,353	12/28/2001	Hugh Barrass	062891.0637	2284

5073 7590 10/12/2005

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EXAMINER

DYKE, KERRI M

ART UNIT PAPER NUMBER

2667

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/035,353	Applicant(s) BARRASS ET AL.	
	Examiner Kerri M. Dyke	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12, 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. The term "approximately" in claims 12 and 23 is a relative term which renders the claim indefinite. The term "approximately" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. N is a number of outputs and must therefore be a discrete number. Using the term approximately renders the claim indefinite because one of ordinary skill would not know the range of outputs that is meant to be covered by the claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-32, 36-44, and 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 4,331,956) in view of Burd et al. (US 6,874,041) in further view of McDonald (US 4,611,123).

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6. Anderson discloses a solid-state crossbar switch with a first number of inputs, a second number of outputs, and a third number of latches operable to connect one of the inputs with N of the outputs. It is disclosed in column 3 lines 8-11 and figure 1 that the number of input ports and output ports is variable. Anderson therefore has claim to any number of ports, including all the numbers specifically indicated by the applicant. Anderson discloses logic in figure 1 element 36 and figure 4.

Anderson's exemplary embodiment in column 2 lines 45-48 discloses using 16 signal line inputs, but it would have been obvious to use any number of signal inputs, including using 1 input to N outputs. It also would have been obvious for N to be less than the total number of outputs because then the number of subscribers at the output can grow without necessitating the replacement or rewiring of all the previously installed switches. It has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184 (CCPA). Also note *Ex parte Rainu*, 168 USPQ 375 (Bd.App.1969); omission of a reference element whose function is not needed would be obvious to one skilled in the art.

Anderson does not show:

- a. Input ports operable to receive DSL data
- b. Output ports capable of coupling to a customer premise equipment (CPE) device
- c. a sweeper port to monitor each output port to detect an active connection
- d. a catcher port to monitor each output port to detect an active connection and to form an active connection to alleviate a bad cluster
- e. solid state analog switches

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Burd et al. discloses items (a) - (d) in column 10 line 8 – column 12 line 22 and figures 11 and 12.

It would have been obvious to one of ordinary skill in the art to add the features taught by Burd et al. to the crossbar switch of Anderson, because doing so allows for automatic configuration and reconfiguration of a DSL connection. A DSL connection is desirable because it allows for fast access to the Internet, as disclosed by Burd et al. in column 1 lines 12-65. Automatic configuration is desirable because it simplifies installation, as disclosed by Burd et al. in column 2 lines 49-53.

McDonald teaches a solid-state analog switch.

McDonald and Anderson are analogous art because both present faster alternatives for relays and relay based systems.

It would have been obvious to one of ordinary skill in the art to use the analog switches taught by McDonald in the crossbar taught by Anderson because the analog switches are faster than the relays that are traditionally used in crossbars, as taught by McDonald in column 1 lines 29-41.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Giesken et al. (US 4,173,713) and Simmons et al. (US 4,524,442) disclose methods for increasing the size of a system without the need for extensive rewiring.

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b. Simcoe (US 5,072,366) discloses a method and logic for monitoring a connection for activity. An active connection is connected, while an inactive connection is disconnected.

c. Michalewicz (US 6,826,708) discloses definitions for logic, (commands), and media, (includes ASIC, FPGA, DSP).

d. Suzuki et al. (US 5,341,234) discloses a system with a first number of inputs, second number of outputs, and a third number of optical splitters. Each input is connected to one splitter, which creates N copies of the signal and sends it to N of the second number of outputs.

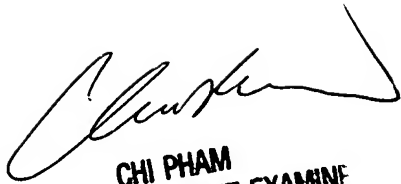
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerri M. Dyke whose telephone number is (571) 272-0542. The examiner can normally be reached on Monday through Friday, 8:10 am - 4:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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kmd


CHI PHAM
SUPERVISORY PATENT EXAMINE
TECHNOLOGY CENTER 2667 10/11/05